THE LOCATION OF HIGH-ORDER SERVICES IN ISTANBUL

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Abstract:

The interurban location of high-order service activities was investigated by many researchers during the 1980s, but few of these studies concentrated on the intermetropolitan location of high-order service activities. Many recent studies have focused on the decline of the central business district (CBD) and rise of suburban areas. These studies have shown that the CBD may be losing its economic and locational importance as a result of the impact of advanced communication technology. The objective of the research summarized in this paper is to evaluate the intrametropolitan locational behavior of high-order services (finance, insurance, real estate, investment and holding companies) in the Istanbul metropolitan area. The factor analysis method is utilized to define the factors important in the determination of office location patterns.

Key words*: high-order service, decentralization, location*

1. Introduction

The traditional urban production center is undergoing a profound change process and today it is the arbitrage centers that act as coordination and control points for production and it is the office buildings which are becoming the symbols of urban life. Not only do today's metropolitan areas play important roles in integrating the country's globalization trends, they have also become the focal points for the rapid dispersion of the technological and economic developments occurring across the face of the globe.

Advanced telecommunication technology gives multi-national corporations the power to greatly surpass the traditional boundaries of goods and services, thus creating markets spread across the world. Information and computer systems create the opportunities for long-distance production control, coordination, marketing, and the financial decision-making process, bypassing the need for face-to-face contact.

One of the most studied topics in the 1980s was research into the interurban locations of high-order service activities. The mechanical density of high-order service activities in a few large metropolitan areas was studied in almost all developed countries. Research into the intrametropolitan location of these activities began in the 1990s. This research has documented that the investment headquarter group is tending to leave city centers to locate in suburban office districts (Cervero, 1989; Garreau, 1981; Stanback, 1991).

The aim of this work is to act as an aid in determining the characteristics of the choices for locations of high order service activities in the Istanbul metropolitan area, a city currently in the midst of a rapid change process. The second section of this paper describes research into this topic; the third section describes the mechanical distribution of the high-order service activities; and the fourth section uses the factor analysis method to determine the changing factor groups that are influencing company officials in their choice of company locations. The fifth section of the paper consists of a cross-tabulation of the types of factor groups considered important by firms.

2. Research into Selection of Location for High Order Services

Haig (1926), a researcher who investigated the subject of the selection of location of high-order service activities, determined that face-to-face transactions were important factors in the selection of location. Work aimed at determining general concepts for this subject turned

over time into experimental research (Gad, 1979, 1985; Code, 1983; Ley, 1985; Hutton & Ley, 1987; Schwarz, 1992; Michalak & Fairbairn, 1993).

Recent investigations demonstrate that transactions carried out with telecommunication technology systems are replacing face-to-face transactions (Gillespie & Hepworth, 1986; Goddard & Pye, 1997; Gottmann, 1983; Hepworth, 1987). The rapid growth of computer-based office functions and telecommunications-based activities has also resulted in the requirements for technology-intensive office buildings. Today's new office buildings are being designed to provide the mechanical infrastructure that the new technological systems require. Analytic research has demonstrated that advanced telecommunication technology has been instrumental in the decentralization of offices, as these sites move from the center to the urban peripheries, and thus have an effect on the physical pattern of urban development (Daniels, 1985; Thrift, et. al, 1987).

Investigations have also demonstrated that there is a difference in volumes of face-to-face transactions between front office and back office activities (Hartshorn, 1980; Broedsky, 1982; Nelson, 1986).

Study has shown that in North America those companies engaging in routine office functions that do not require face-to-face transactions have tended to move to suburban locations. In an investigation of Toronto carried out in 1983, Code demonstrated that the existence of a front office is an important factor in the selection of location and that the difference in rental costs between the city center and suburban locations is also instrumental in the process of move out of the city center. He also theorized that, in addition to the economic savings resulting from lower rents, companies moving out of the center may be driven by other factors, including those of information exchange and manpower potentials and subjective factors such as prestige.

In a study they made of Montreal, Coffey, Polese, and Drolet (1996) demonstrated that the decentralization of high-order activities was not universal and that even though a certain segment of the metropolitan area may have been decentralized, the city center continues to be the focal point of activities of the highest order.

In the present work the writers have conducted a survey of 400 of Istanbul's high-order activity companies, comprising those involved in financial, insurance, and real estate activities (FIRE). It has been determined that the high-order activities play a role in supporting the growth of the economy, investments, and technological change and in providing structure for the economy as a whole.

3. The Distribution of High-Order Service Sector Activities

The Istanbul metropolitan area is Turkey's principal metropolitan agglomeration with a population of slightly more than 10 million inhabitants in 1997. Istanbul's central business district (CBD) attracts the majority of the FIRE service firms, with 86.01% of all headquarters, 74.58% of all finance and insurance companies; and 62.0% of all real estate companies. The proportion of the active population employed in the high-order services increased from 4.39% to 7.06% between 1970 and 1990.

In order to determine the distribution of Istanbul's FIRE companies, we divided the city into three major zones. The first zone comprises the three kilometer radius core of the city (Eminönü and Beyo_lu) with Eminönü taken as the center. The second zone has a 12 kilometer radius and comprises the areas of Be_ikta_, Eyüp, Fatih, Kadyköy, _i_li, Üsküdar, and Zeytino_lu. The third zone is located along the periphery of Zone Two and includes the Princes' Islands, Bakyrköy, Beykoz, Gaziosmanpa_a, Kartal, and Saryyer.

According to Istanbul Chamber of Commerce statistics related to the distribution of the FIRE companies and encompassing the periods spanning 1960-1990, in 1996 a total of 56.14% of these companies were located in the city core, while in 1990, this total had dropped to 31.36% of the total. While 42.86% of the FIRE companies had been located in Zone Two in 1996, by 1990 this figure had climbed to 58.86%. The change in Zone Three during this time period was minimal (10.19% and 10.60%).

In 1960 48.03% of the finance companies (banks, insurance companies, bankers, stock brokers and foreign exchange bureaus) were located in the core with 41.78% of these same companies in Zone 2 and 10.19% in Zone Three. By 1990 the location percentages for finance companies were 26.78%, 55.48 and 17.74% respectively.

In 1960 43.49% of all real estate offices were located in the city's core, while 47.81% were in Zone Two. By 1990 the number of these offices located in the city's core had dropped to 19.23%, while Zone Two registered a high increase with 51.80% and Zone Three now accounting for 28.97% of these kinds of activities, demonstrating a decentralization of real estate offices.

4. Research Area

The data collected from this study were obtained from a survey made of 400 of Istanbul's companies providing high-order activities (finance, insurance, and real estate). The survey was made through personal interviews conducted during June-July, 1997.

The list of companies registered with the Istanbul Chamber of Commerce during the month of May 1997 was used to determine the quota ratios reflecting the unique characteristics of the sample of Istanbul high-order activity companies.

In this section different variables were grouped and cross-tabulation evaluations were made to determine the parallelism and relationships existing between the variables.

Cross-tabulations of the districts surveyed and the types of activities provided demonstrated that the majority of the investment and general-management group companies are located in _i_li, Be_ikta_ and Beyo_lu; the majority of the banks are found in Kadyköy and Beyo_lu; stock brokers and foreign currency companies are located in _i_li, Eminönü, Be_ikta_, and Beyo_lu; insurance companies are found in Kadyköy, _i_li, and Be_ikta_; while real estate companies are primarily clustered in Kadyköy, Be_ikta_, and Bakyrköy.

When the distribution of kinds of activities provided is examined by zone, it becomes clear that the majority of total kinds of activities are clustered in Zone Two.

The cross-tabulation of the founding date of companies surveyed with the zone in which they are located illustrates that those companies founded after 1970 are increasingly located in Zone Two.

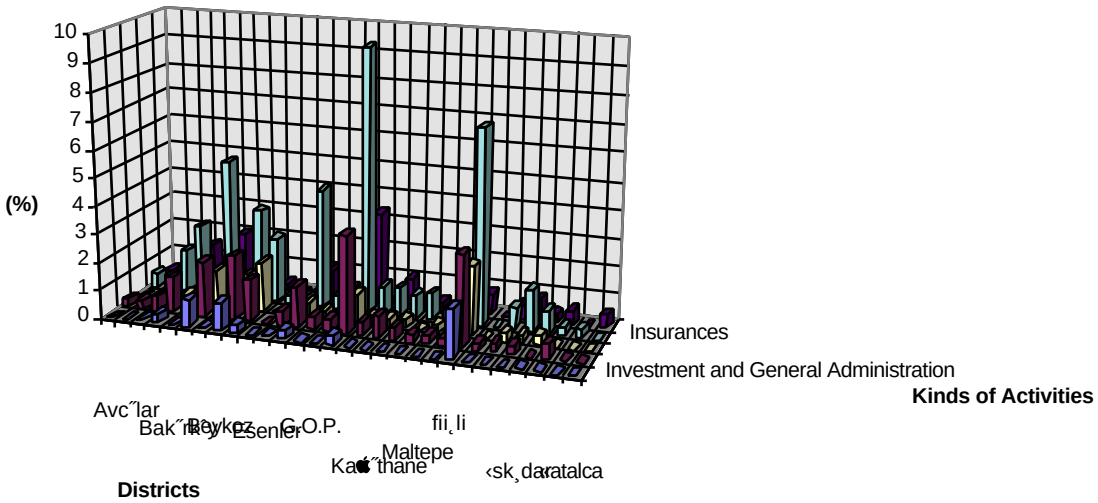

Figure.1 The Distribution of Kinds of Company Activities By District

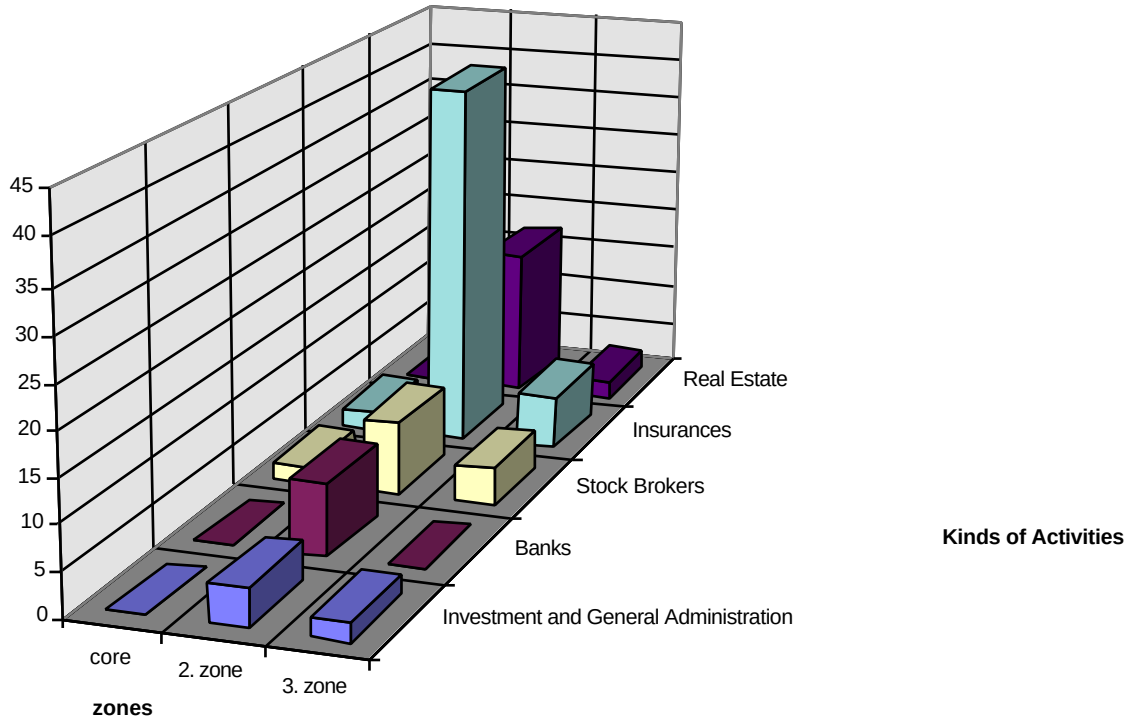

Figure 2.The Distribution of Kinds of Company Activities by Zones

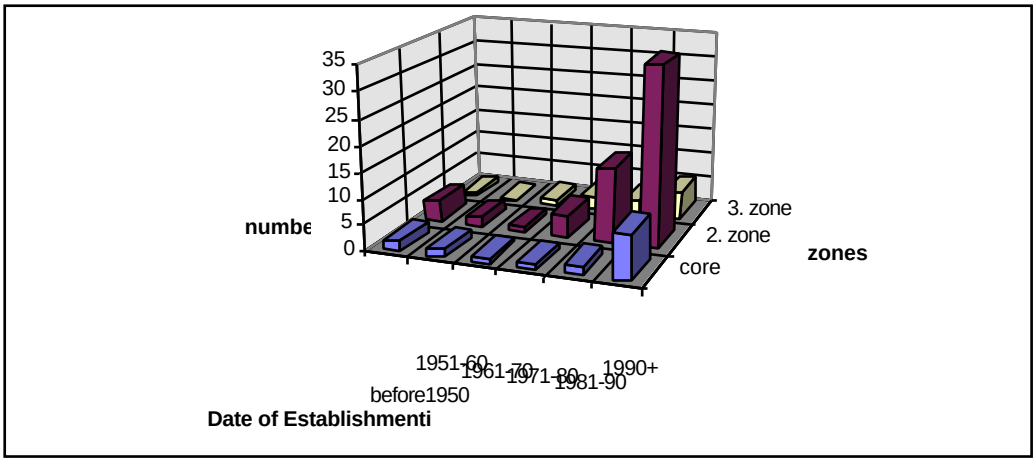

Figure 3. The Zone in which newly established companies are first located

4.1 Factors Influencing Choice of Company Location

A factor analysis method was applied to the analysis of data by using the SPSS package program. In the survey, a factor analysis was made using multi-variable analysis techniques to determine the importance of the various criteria among company officials so that the factors that influence company location selection could be grouped.

The factor analysis method is also termed the data reduction method. This statistical analysis method is used as a measuring tool that explains the relationships between the variables by a method of simplification. In other words, rather than using multiple variables to explain a complex subject, factor analysis explains the subject with fewer variables.

In the first stage a correlation matrix was determined for all of the variables and the pairwise method was used for incorrect responses.

The Kaiser-Meyer-Olkin (KMO) measurement is an index value used to analyze the suitability of the sample group to factor analysis. The KMO tests suitability by comparing the rate of significance between the observed correlation coefficient and the partial correlation coefficient. If the KMO value is 0.90 the sample has an "excellent" factor analysis suitability rated as "excellent." If the value is 0.80 the sample is rated as "highly suitable." A 0.70 rating determines "suitability," while a rating of 0.50 and below signifies that the sample is "unsuitable" for factor analysis (Norusis, 1992). The sample group in this work has a KMO value of approximately 0.81 and, therefore, tests as "highly suitable" for factor analysis.

When a "Principle Component" analysis was implemented with the data, it was found that five of the variables were at boundary levels of "Eigen"values while the remaining were over the value of "1".

According to the statistical results given in Table 1, 17 variables in the first factor group had a total variability of 27.9%. The rate for the second fact group was 9.4%; that of the third factor group was 8.5%; the fourth factor group was 7.6%; while the fifth factor group was 5.9%. The five factor groups cited had a total variation of 59.3%.

The "Varymax" or "Equamax" transformation grouped the criteria of importance to company officials when making their selection for site location into five main groups (see Table).

The first factor of importance to company officials when locating their companies was that of "the physical condition of the structure and the environment." This factor had a total variance of 27.9%. This result shows that company officials place great importance on the physical make-up of the building and the environment in which their company is to be located. Two of the variables included in this factor (Var00022, "The Physical Condition of The Office" and "Var00021, "The Availability Of Sufficient Floor Space") have weights exceeding 0.7%.

The other variables within this factor group are Var00023, “The Physical Conditions of The Building,” Var00024, “Availability Of Parking Space,” and Var00025, Pleasant Surrounding Environment.”

The factor ranking in second place was that of “Desire for Centralized Location” which had a total factor variance of 9.4%. One variable within this factor group (Var00029, Proximity to Sector Activities) had a factor weight that exceeds 0.7%. Other variables of importance within this factor group are Var00028, “:Customer Potential,” and Var00030, Proximity to Financial Center.

The third factor has been termed “Prestige Dimensions.” This factor had a total weight of 8.5%. Two of the variables within this group had weights exceeding 0.7%, these are Var00017, Accessibility and Relation to Transportation Facilities,” and Var00018, “Visible Location.”

The fourth factor group, “Working conditions Required by Type of Company Operations,” included two variables with a factor weight exceeding 0.7%. These are Var00032, “Proximity to Sector Subsidiary Firms,” and Var00031, “Proximity to Firms in Same Sector.” The other variable within this group is Var00033, “Suitability of Type of Operations to the Setting.”

Table 1. Initial statistics for each factor and varimax rotated factor matrix.

FAKTÖRLER		Factor Loading	Eigen Values	Pct of Var.
1. Faktör	PHYSICAL CONDITION OF THE STRUCTURE AND THE ENVYRONMENT		4,74	27,9
Var00022	Physical condition of office	0,771		
Var00021	Availability of sufficient floor space	0,741		
Var00023	Quality of building	0,680		
Var00024	Availability of parking space	0,624		
Var00025	Pleasant surrounding environment	0,521		
2. Faktör	DESYRE FOR CENTRALIZED LOCATION		1,60	9,4
Var00029	Proximity to sector activities	0,769		
Var00028	Customer potential	0,668		
Var00030	Proximity to financial center	0,645		
3. Faktör	PRESTIGE DIMENSIONS		1,44	8,5
Var00017	Accessibility and relation to transportation facilities	0,839		
Var00018	Visible location	0,826		
Var00019	Prestigious location	0,623		
4. Faktör	WORKING CONDITIONS REQUIRED BY TYPE OF COMPANY OPERATIONS		1,28	7,6

Var00032	Proximity to sector subsidiary firms	0,816		
Var00031	Proximity to firms in same sector	0,756		
Var00033	Suitability of type of operations to the setting	0,457		
5. Faktör	ECONOMIC DIMENSIONS		1,00	5,9
Var00026	Lower municipal taxes	0,768		
Var00027	Ownership	0,660		
Var00020	Relatively cheap real estate property	0,585		

The variables making up the fifth factor group were those given the least significance or those which were not considered problematic when making the location choice. The fifth group of variables is made up of those having "economic dimensions." One of the variables within this group, Var00026, "Lower Municipal Taxes," had a weight exceeding 0.7%. The other variables included in this group are Var00026, "Ownership of Property," and Var00020, "Relatively Cheap Real Estate Property."

In conclusion it was observed that the factors obtained through both "varimax" and "equamax" are equal and that the first factor of importance for company officials when they make their selection of company location is that of "the physical condition of the building and the setting"; the second most important factor is that of "desire for a centralized location," the third most important is "prestige dimensions;" ranked in fourth place is that of "working conditions required by type of company operations," while "economic dimensions" ranked in last or fifth place. Those factors that influence or do not influence the selection of business location or, in other words, those variables that represent the group in which they are found can be seen in the Table.

4.2 Importance of Factor Groups by Type of Company

Cross-tabulation tables have been drawn up for the variables included in each factor group according to the type of company being surveyed. According to this cross-tabulation the first variable within the first factor group "Physical Condition of the Building" has been ranked by type of company. According to this cross-tabulation this variable was important to 79% of the investment-general management group, 88.8% of the banks, 77.8% of stock brokers and foreign currency companies, 77.2% of insurance companies, and 67.8% of real estate agents

The variable related to "Availability of Sufficient Floor Space," was important for 84.3% of the investment-general management group, 84.2% of the banks, 88.0% of stock brokers and foreign currency companies, 77.2% of insurance companies, and 66.1% of real estate agents

While 73.7% of the investment-general management group indicated the importance of "the physical condition of the building," 86.5% of the banks, 80.0% of stock brokers and foreign currency companies, 70.2% of insurance companies, and 61.0% of real estate agents agreed that this factor was of importance.

The cross-tabulation of the importance of parking space shows that 78.9% of the investment-general management group, 73.0% of the banks, 71.1% of stock brokers and foreign currency companies, 72.9% of insurance companies and 72.9% of real estate agents agreed that this factor was of importance.

A total of 52.7% of the investment-general management group believed that "pleasant surrounding environment" was important in their choice of a location. This determination was shared by 69.7% of the banks, 84.4% of stockbrokers and foreign currency companies, 81.9% of insurance companies and 72.8% of real estate agents.

The first variable in the second group, "The Desire for a Centralized Location" is "Proximity to Sector Activities." 79% of the investment-general management group, 92.1% of the banks, 91.1% of stock brokers and foreign currency companies, 83.5% of insurance companies and 79.7% of real estate agents agreed that this factor was of importance.

The "Customer Potential" variable was important to 68.4% of the investment-general management group, 97.8% of the banks, 88.9% of stock brokers and foreign currency companies, 81.9% of insurance companies and 91.5% of real estate agents.

In this same factor the "Desire For A Centralized Location," The "Proximity To Financial Institutions" was important for 68.4% of the investment-general management group, 84.3% of the banks, 77.7% of stock brokers and foreign currency companies, 68% of insurance companies and 62.8% of real estate agents

In the third factor (Prestige Dimensions) the variable of "Accessibility And Relation To Transportation Services" was important to 84.2% of the investment-general management group, 87.6% of the banks, 86.6% of stock brokers and foreign currency companies, 85.6% of insurance companies and 88.1% of real estate agents.

A "Visible Location" was important to 68.4% of the investment-general management group, 85.4% of the banks, 82.2% of stock brokers and foreign currency companies, 73.4% of insurance companies and 84.7% of real estate agents.

A "Prestigious Location" was important to 42.1% of the investment-general management group, 61.7% of the banks, 66.7% of stock brokers and foreign currency companies, 66.5% of insurance companies and 72.9% of real estate agents.

In the Fourth Factor Group, the variable related to "The Proximity Of Subsidiary Sectors" was important to 73.3% of the investment-general management group, 68.5% of the

banks, 73.3% of stock brokers and foreign currency companies, 64.8% of insurance companies and 57.7% of real estate agents.

"Proximity to Other Companies in the Same Sector" was important to 52.7% of the investment-general management group, 58.5% of the banks, 75.5% of stock brokers and foreign currency companies, 38.8% of insurance companies and 35.6% of real estate agents.

"Suitability of type of operations to the setting" was important to 73.7% of the investment-general management group, 80.9% of the banks, 75.6% of stock brokers and foreign currency companies, 74..4% of insurance companies and 66.1% of real estate agents.

The variable of "Lower Municipal Taxes" in the fifth group was found to be relatively low in importance in terms of company location. The insignificance of this variable may be due to the relatively low property taxes. This variable was listed as important to 5.3% of the investment-general management group, 19.1% of the banks, 28.9% of stock brokers and foreign currency companies, 27.7% of insurance companies and 27.1% of real estate agents.

"Company Ownership of Property" was important to 73.7% of the investment-general management group, 43.8% of the banks, 57.7% of stock brokers and foreign currency companies, 53.2% of insurance companies and 59.3% of real estate agents.

"Relatively Cheap Real Estate Property" was important to 42.1% of the investment-general management group, 45% of the banks, 46.6% of stock brokers and foreign currency companies, 54.8% of insurance companies and 51.2% of real estate agents.

5. Conclusions

Due to both its geographical location and its historical relationships the Turkish Republic today acts as a country that bridges markets spread across Northern Africa and the Middle East and has become an important point for foreign investments.

In this light, then, an understanding both of the activities of the high-order service activity companies operating in Istanbul and that of the effects of the location of these companies on the city's development are important in terms of the city's international business dealings.

This work was aimed at determining the factors that are important to company officials when they make decisions regarding where to locate their companies. According to the results of a factor analysis the variables rated as important to company officials could be grouped into five factor categories. The factor group of greatest importance was found to be that of "the physical condition of the building and its surroundings." The second factor was "proximity to

the business center;" the third important included "prestige dimensions;" the fourth factor group consisted of "working conditions required by type of company operations," while the fifth and least important factor was that related to "economic dimensions." The importance of "business being in a location which can be seen," "location in a prestigious district," and "the physical conditions of the building" differed according to the type of company.

The most important conclusion derived from this study is that, rather than demonstrating a process of intrametropolitan decentralization, the location of the high-order activity companies in Istanbul appear to demonstrate a trend towards clustering in the CBD.

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